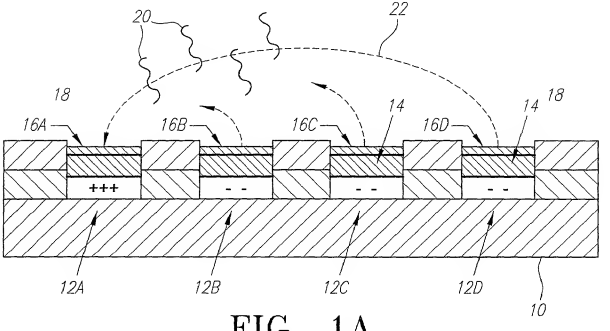


FIG. 1A

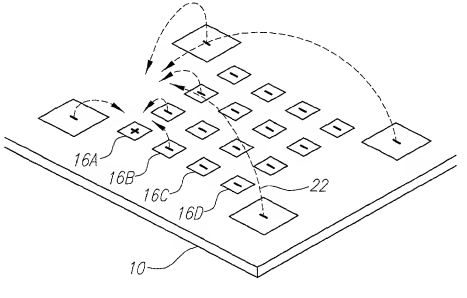
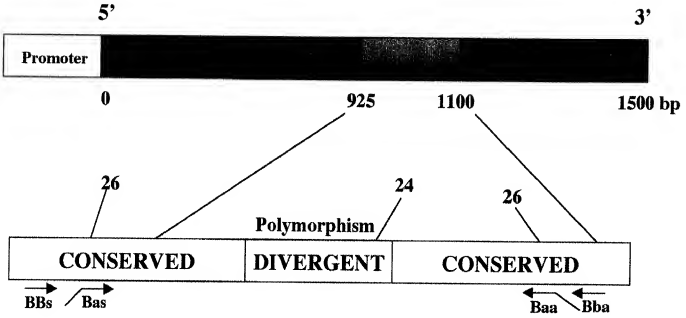


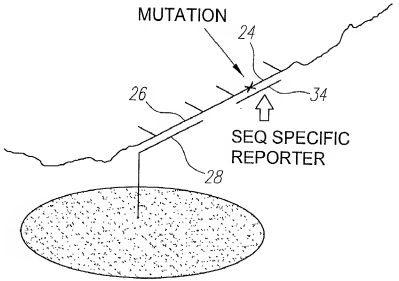
FIG. 1B

FIGURE 2A



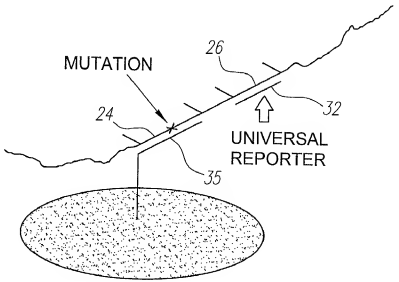
E. coli: ctcatctctgaaaacttc
S. dys cgtatctctacaaggttc
S. typ: tccatctctggattcttc
C. jej: catatctctataaggttc

FIGURE 2B



UNIVERSAL CAPTURE

FIG. 2C



SEQUENCE-SPECIFIC CAPTURE

FIG. 2D

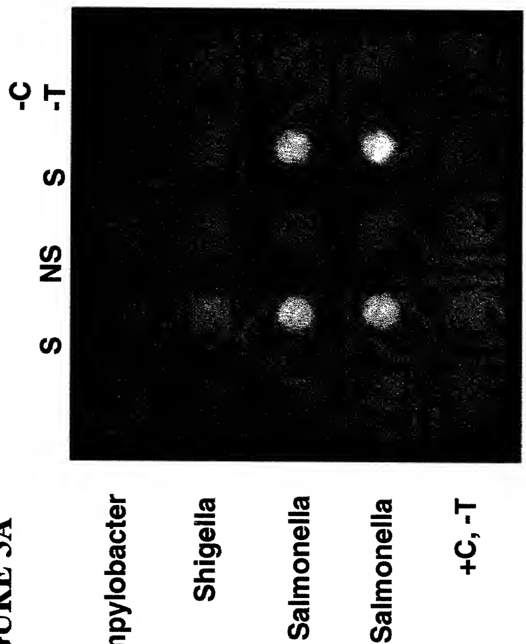


FIGURE 3A

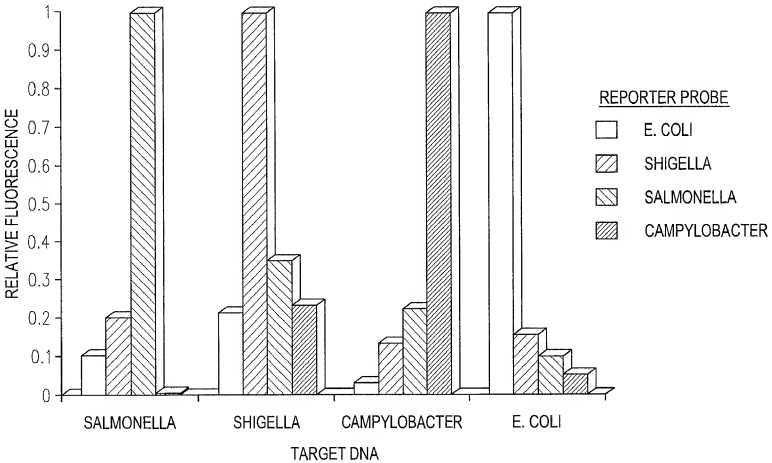


FIG. 3B

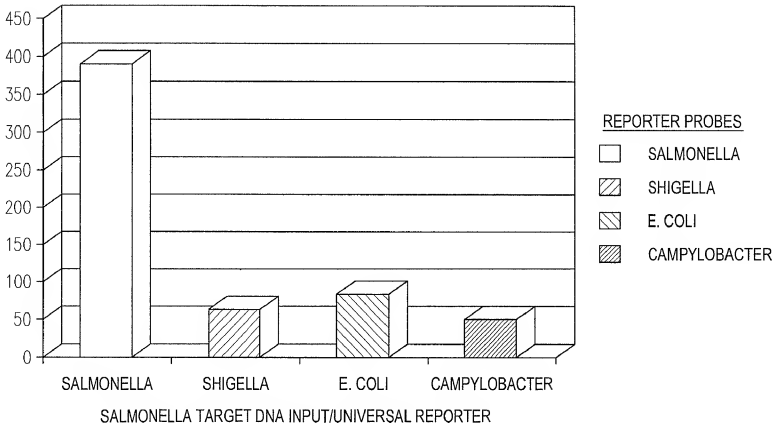
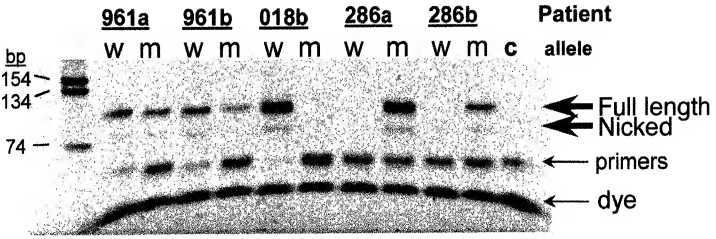


FIG. 3C

FIGURE 4A



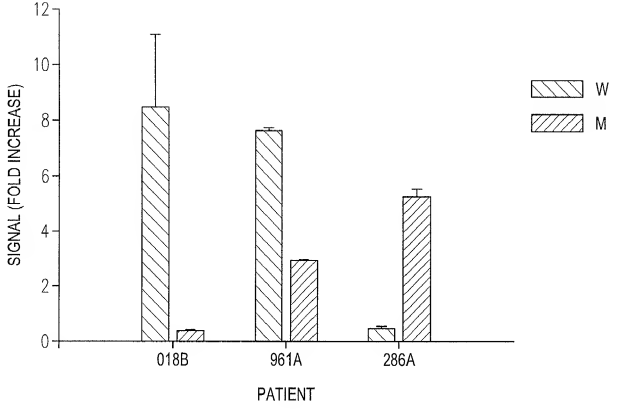


FIG. 4B

FIG. 5A

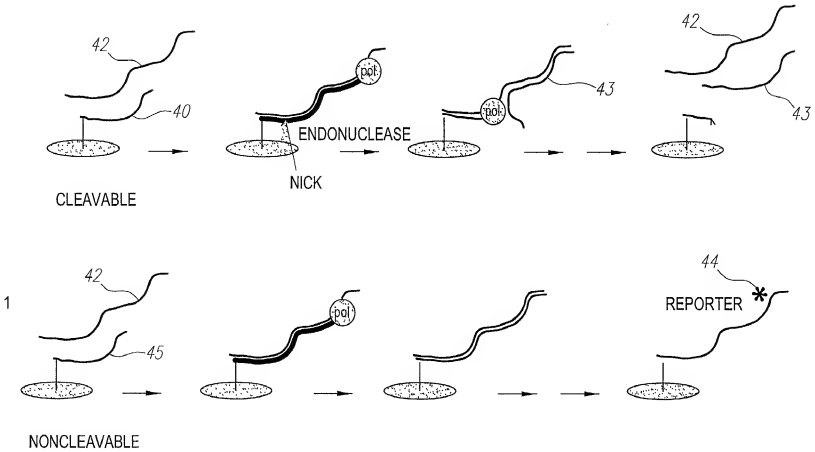

42
40
pol
ENDONUCLEASE
NICK
43
42
43
CLEAVABLE
42
45
pol
44
REPORTER
*
NONCLEAVABLE

FIG. 5B

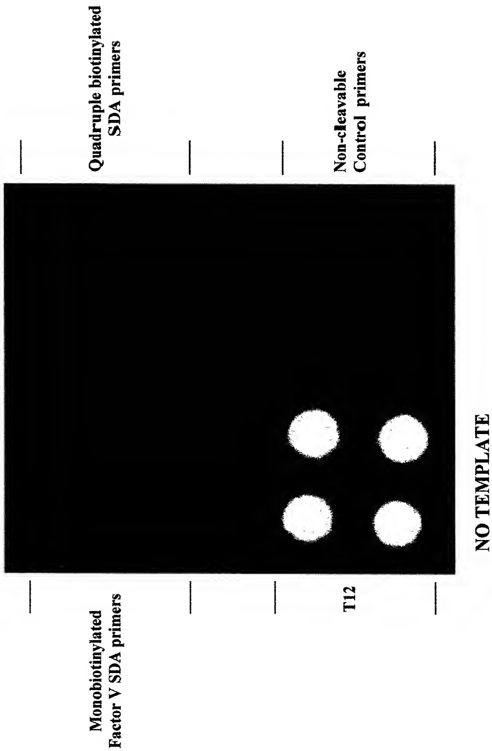
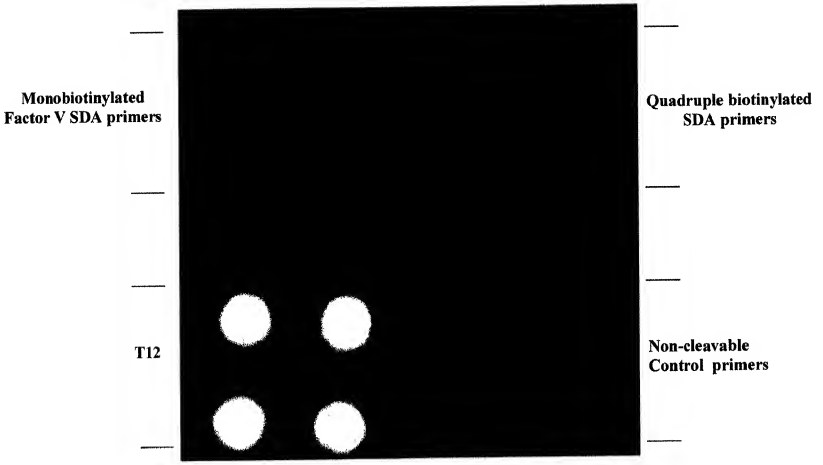

Quadruple biotinylated SDA primers
Non-cleavable Control primers
Monobiotinylated Factor V SDA primers
T12
NO TEMPLATE

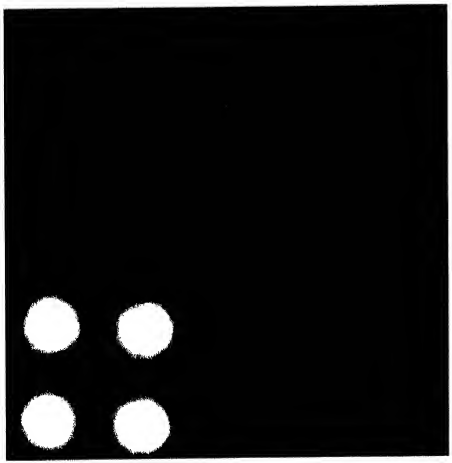
FIGURE 6A

FIGURE 6B



PLUS TEMPLATE/MINUS BSO BI

FIGURE 6C



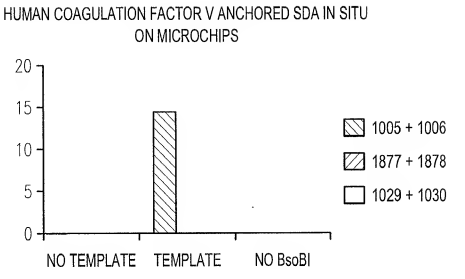


FIG. 7

1005 + 1006 = MONOBIOTINYLATED PROBES
1877 + 1878 = QUADRUPLE-BIOTINYLATED PROBES
1029 + 1030 = NON-CLEAVABLE CONTROL PRIMERS

FIGURE 8

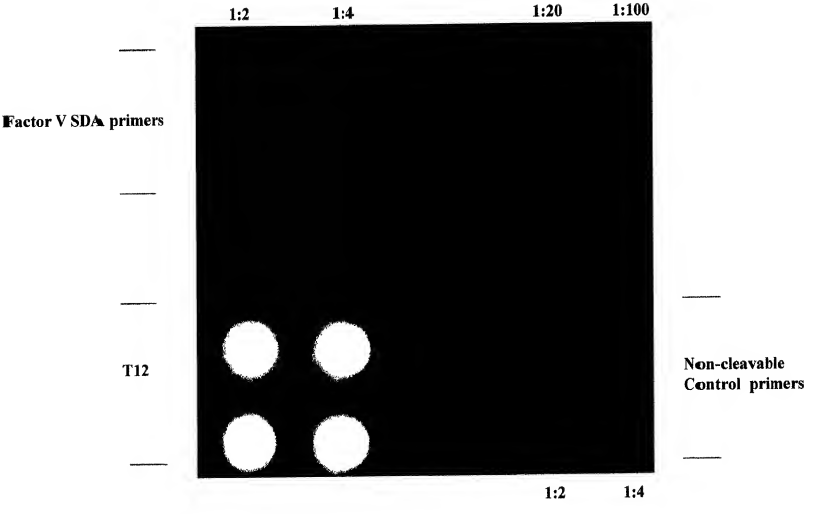


FIG. 9

1005 + 1006 = FACTOR V SDA PRIMERS
1029 + 1030 = NON-CLEAVABLE CONTROL PRIMERS

FIGURE 10A

Lane

1. mol wt markers
2. PCR amplification
3. NASBA 1X template
4. NASBA 1,000X diluted template
5. NASBA 1,000,000X diluted template
6. NASBA - no template

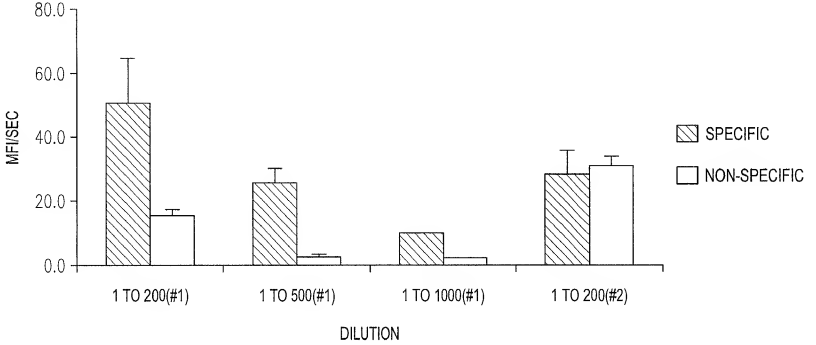


FIG. 10B

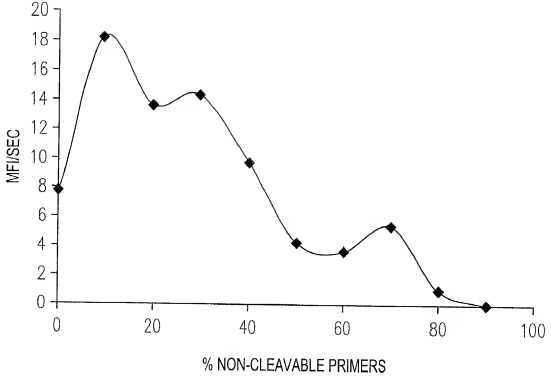


FIG. 11

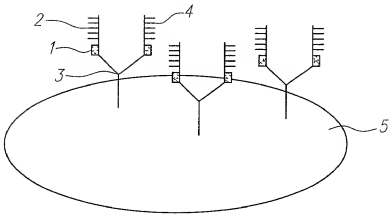


FIG. 12

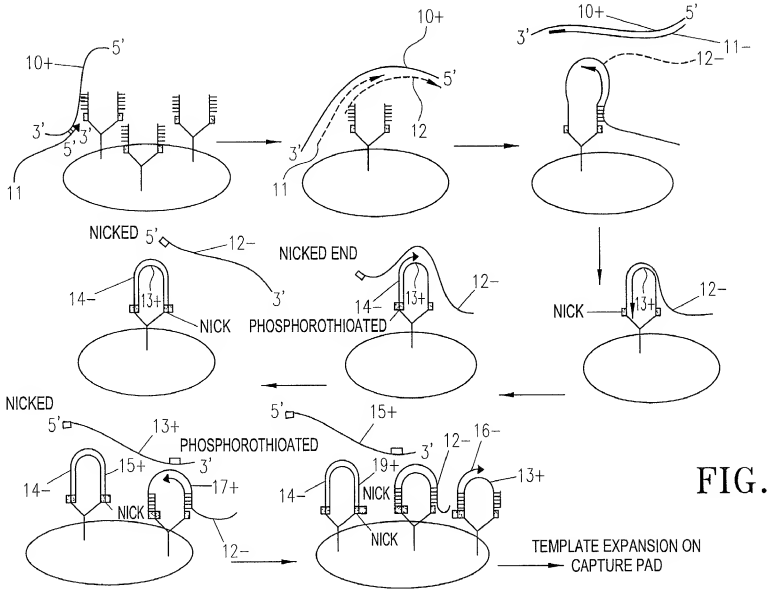


FIG. 13

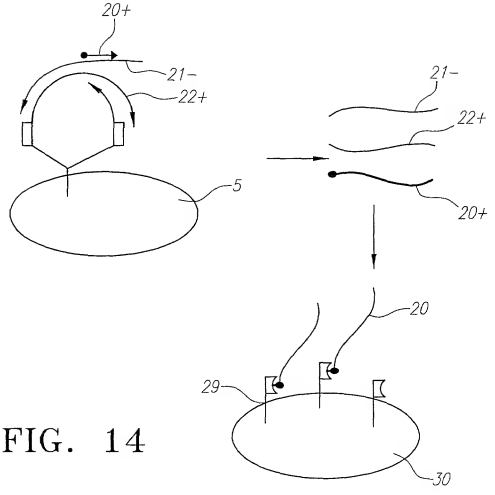


FIG. 14

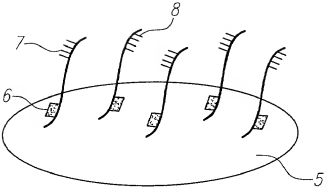
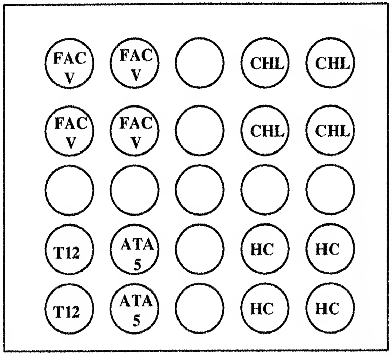


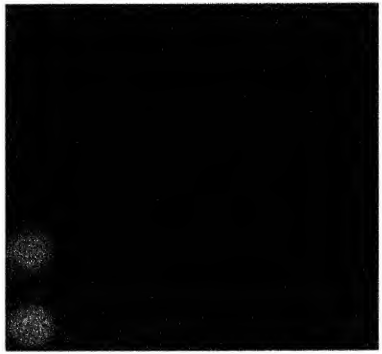
FIG. 15

FIGURE 16



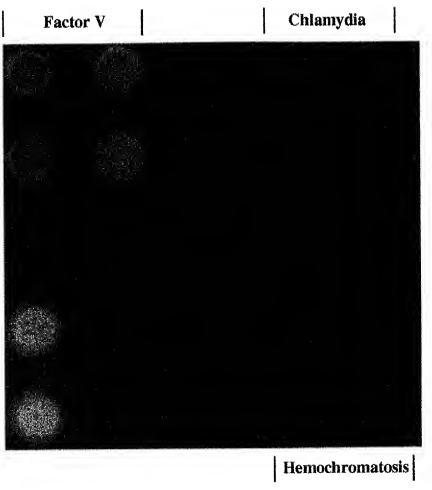
Experimental Layout

FIGURE 17



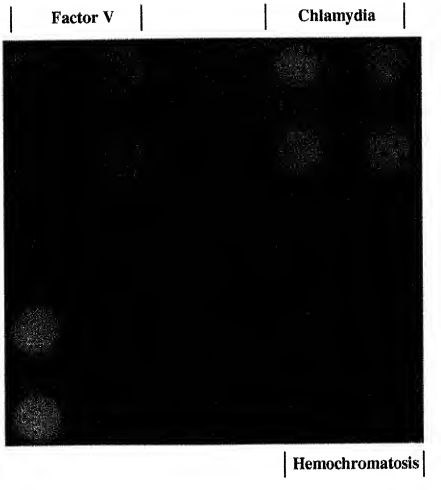
Control - No template +
all reporter oligos

FIGURE 18



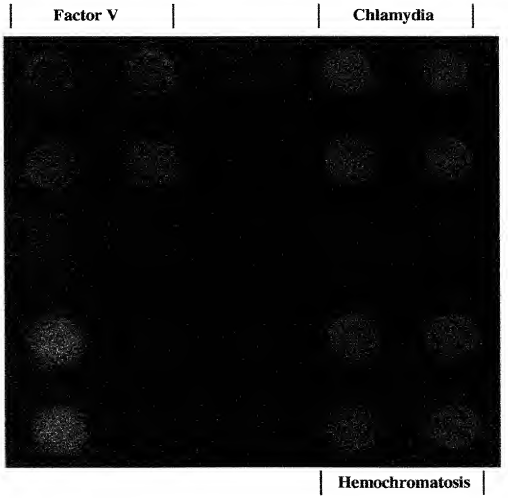
All templates + Factor V Reporter oligo

FIGURE 19



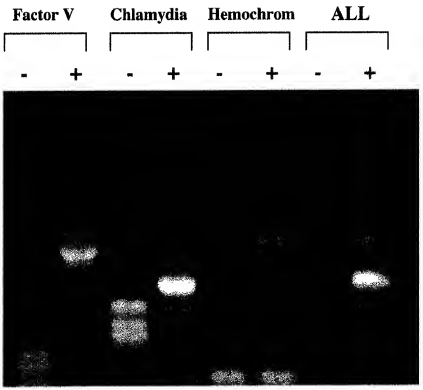
All templates + Factor V, Chlamydia Reporter Oligos

FIGURE 20



All templates + Factor V, Chlamydia and Hemachromatosis reporter oligos

FIGURE 21



Control Solution SDA reactions

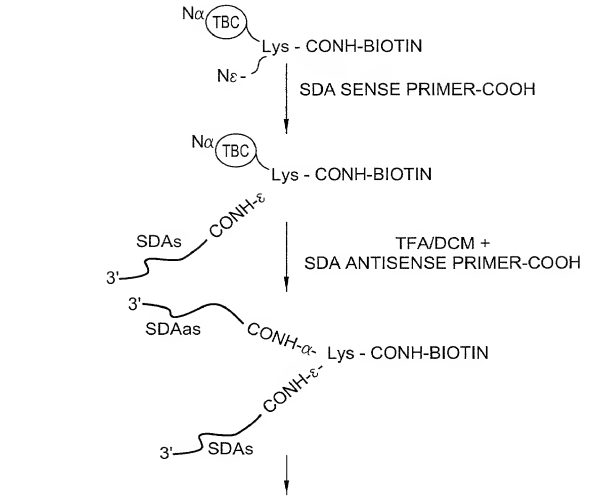


FIG. 22

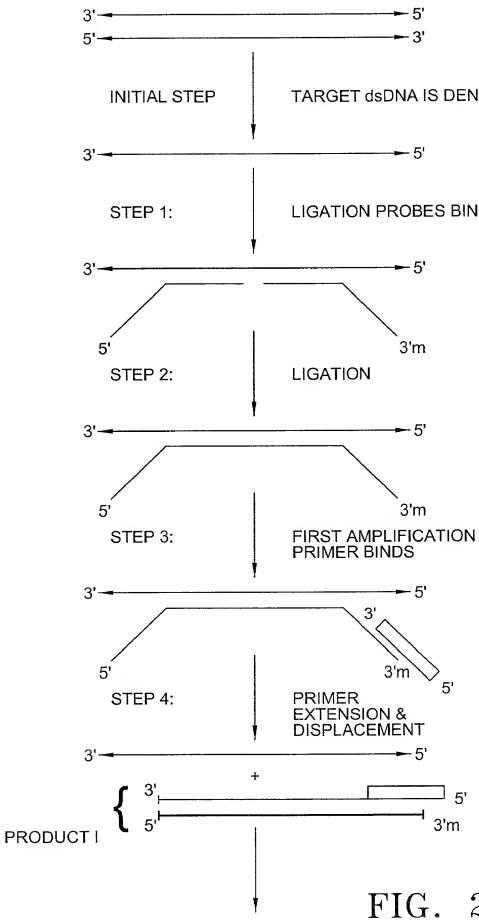


FIG. 23A

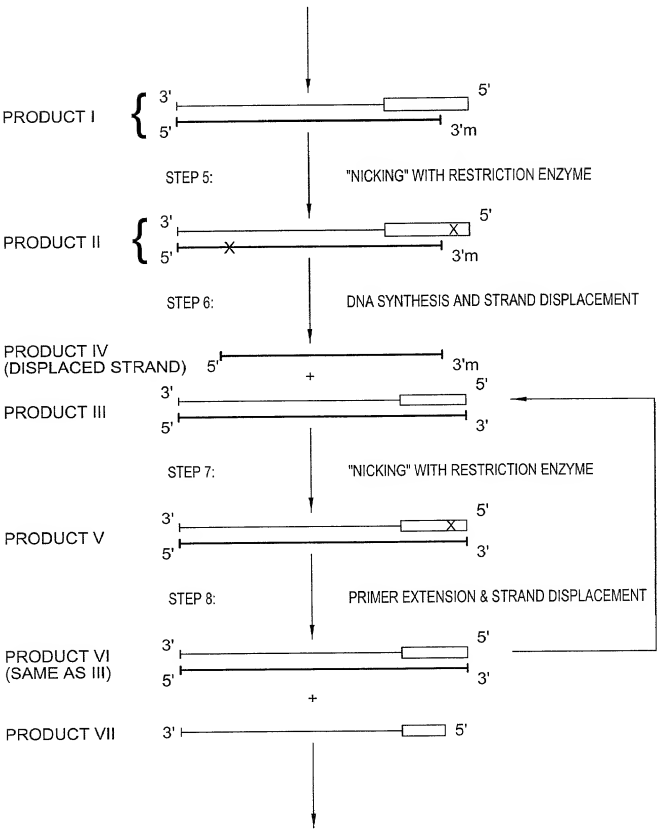
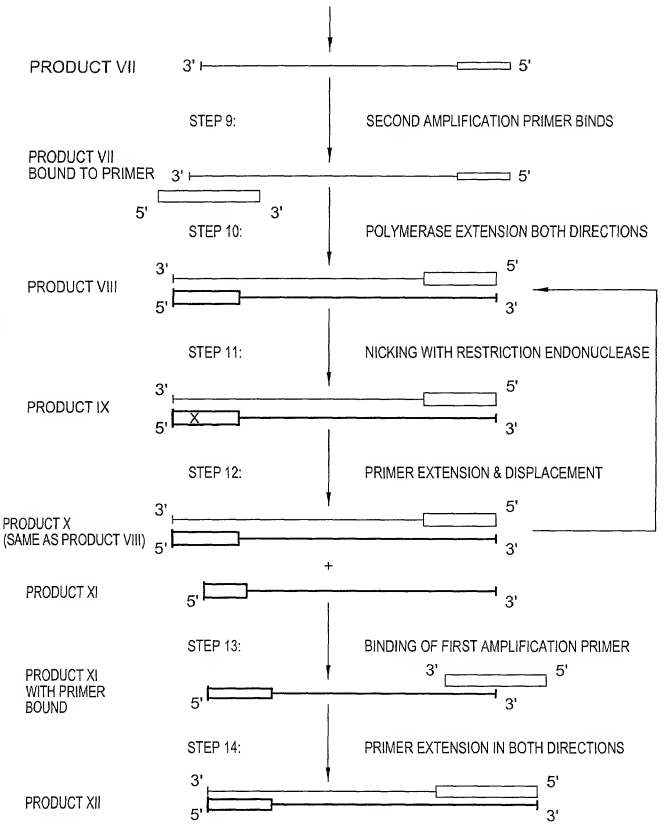

PRODUCT I
3'
5'
5'
3'm
STEP 5:
"NICKING" WITH RESTRICTION ENZYME
PRODUCT II
3'
5'
X
5'
X
3'm
STEP 6:
DNA SYNTHESIS AND STRAND DISPLACEMENT
PRODUCT IV
(DISPLACED STRAND)
5'
3'm
+
PRODUCT III
3'
5'
5'
3'
STEP 7:
"NICKING" WITH RESTRICTION ENZYME
PRODUCT V
3'
5'
X
5'
3'
STEP 8:
PRIMER EXTENSION & STRAND DISPLACEMENT
PRODUCT VI
(SAME AS III)
3'
5'
5'
3'
+
PRODUCT VII
3'
5'

FIG. 23B

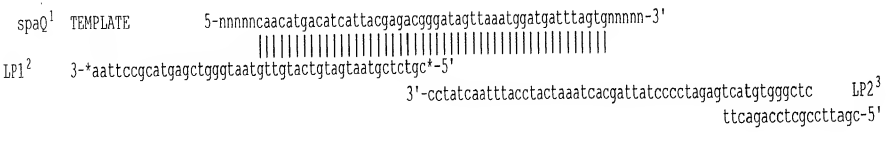


(PRODUCT XII CAN RE-ENTER PATHWAY AND BE FURTHER AMPLIFIED IN A MANNER SIMILAR TO PRODUCT III, FOLLOWING STEP 6)

FIG. 23C

LIGATION-DEPENDENT DETECTION OF THE SALMONELLA spaQ GENE

LIGATION PROBES LP1 AND LP2:



AMPLIFICATION PRIMER SEQUENCES S1 AND S2:

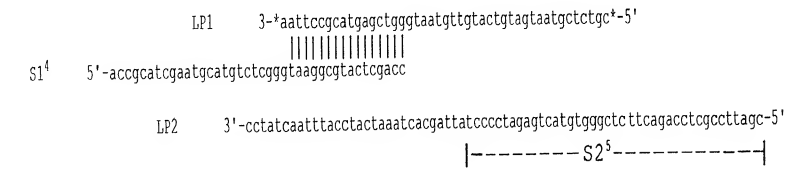
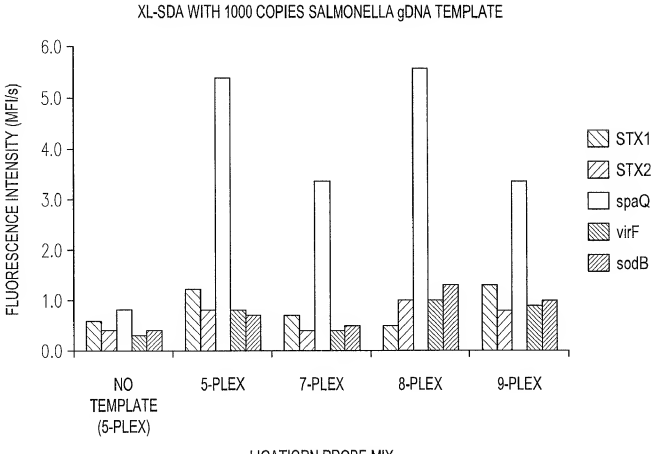


FIG. 23D



ELECTRONIC HYBRIDIZATION USING MICROELECTRODE ARRAY OF XL-SDA REACTIONS WITH SALMONELLA GENOMIC DNA AT 1000

FIG. 24